DOCUMENT RESUME

ED 305 976 JC 890 204

AUTHOR Clagett, Craig A.
TITLE Using Student Outcomes Data To Demonstrate Institutional Accountability: An Application of Institutional Research.
PUB DATE 31 Mar 89
NOTE 11p.; Paper presented at the Annual Convention of the American Association of Community and Junior Colleges (69th, Washington, DC, March 29-April 1, 1989).
PUB TYPE Reports - Descriptive (141) -- Speeches/Conference Papers (150)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS *Accountability; Community Colleges; *Educational Assessment; Evaluation Criteria; *Institutional Research; Organizational Objectives; *Outcomes of Education; Program Evaluation; *Research Utilization; *Statewide Planning; Two Year Colleges
IDENTIFIERS *Maryland

ABSTRACT

An overview is provided of the responses made by Maryland's community colleges to growing concerns for accountability and the measurement of educational outcomes. First, the paper reviews the legislative initiatives and agency actions that characterized the state's movement toward a formalized, state-coordinated institutional assessment procedure. The next section describes the ongoing assessment activities that preceded the development of new accountability requirements in 1987-88, including state reporting systems for enrollment, graduation, and discipline cost data; surveys conducted by the Maryland State Board for Community College Education; reports on performance on certification and licensure examinations; transfer performance reports from senior institutions; qualitative program evaluations conducted by colleges; and institutional research studies. Following a discussion of the strengths and weaknesses of these existing systems, the paper explains the process developed to monitor and assess student progress and achievement at Prince George's Community College. This section explains the application of institutional research findings to the development of accountability objectives related to minimal rates of graduate placement in jobs for which students were trained, minimum pass rates on licensure examinations, and standards for transfer student achievement at senior institutions. Finally, the paper identifies several issues that the current emphasis on accountability has raised for institutional researchers. (ALB)

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AN APPLICATION OF INSTITUTIONAL RESEARCH

National Council for Research and Planning Forum

69th Annual Convention of the

American Association of Community and Junior Colleges

March 31, 1989

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prepared by

Craig A. Clagett
Director of Institutional Research and Analysis
Prince George's Community College

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Craig A. Clagett
Director of Institutional Research and Analysis
Prince George's Community College

Introduction

Institutional accountability, particularly as demonstrated by student learning outcomes assessment, has been at the top of the higher education agenda during the 1980s. Led by state initiatives in Tennessee, New Jersey, and Virginia, by 1987 two-thirds of the states had requirements that public institutions show evidence that they were producing desired outcomes for students. In 1988, Maryland joined those with legally-mandated accountability requirements. This paper will review how Maryland's community colleges have responded to the evolving accountability concerns, with a focus on Prince George's Community College.

Accountability in Maryland

The movement for a formalized, state-coordinated institutional assessment procedure began in March 1980, when the Legislative Auditors Report on the Maryland State Board for Higher Education (SBHE) recommended that SBHE develop and implement a system for evaluating educational programs. The Board was further encouraged to study the option of testing students prior to graduation for basic skills. As a result of this recommendation, SBHE compiled a set of data drawn from existing systems and distributed it under the title "Indicators of Campus Viability." A Joint Chairs Report in April 1984 recommended that SBHE pursue the use of existing standardized test results to evaluate student proficiency. The Legislative Auditors Report on SBHE in May 1984 reiterated its previous recommendation and specified that if existing standardized tests were found to be inadequate, the Board was to develop an alternative testing method. SBHE's response was to appoint an advisory committee of segmental representatives to examine the feasibility of testing. The advisory committee reported in December 1984 that if testing was to be used to measure educational outcomes, such a test should include a "value-added" approach and should measure general cognitive development, rather than simply test basic skills. Two options were included in the report: a single test for all public institutions or campus-designed testing programs. The committee recommended the ACT-COMP if the first option was selected. The segment heads reviewed the advisory committee's report and recommended the

first option, a single statewide test. However, the staff and the Board preferred a new instrument, to be developed by ETS for Maryland, rather than using the COMP. On February 13, 1986, the Board approved a policy statement as part of the Statewide Plan for Postsecondary Education that called for development of a program for testing college students completing their sophomore year. All segment heads approved the initiation of a pilot "rising junior" outcomes assessment to be conducted in spring 1987. However, approximately a week later, a petition to transfer SBHE funds necessary for the planning and development of the pilot program was denied by the Department of Budget and Fiscal Planning and the Governor's Office. As a result of this action by the Executive, SBHE decided to pursue the second option recommended by the advisory committee: establishing campus-based testing and assessment programs.

Deliberations of a new segmental study group led to March 1987 policy statement by SBHE listing guidelines for institutional assessment. Each campus was to develop an assessment plan to include:

1. A clear statement of those outcomes the institution expects to produce.

2. An explicit assessment of the degree to which the institution is attaining these outcomes. This assessment should:

    a. include the coordination, collection, and use of existing campus measures and indices;

    b. include outcomes indicators which emphasize general education and higher-level cognitive skills and which incorporate value added and/or other appropriate comparative measures;

    c. be based on an approach that would allow the college to analyze results over time.

In addition to providing accountability to the governor, legislature, and public, this process was intended to provide feedback to the college to promote institutional renewal and program improvement.

In October 1987, SBHE issued the first draft of procedures for the implementation of the policy guidelines on assessment of institutional outcomes. Over the next few months, several revisions were made, largely reflecting input from the University of Maryland. On June 23, 1988, the State Board for Higher Education approved the "Procedures for the Implementation of the State Board for Higher Education Policy Guidelines on Assessment

of Institutional Outcomes." This document outlined the development of "institutional outcomes assessment plans" to include a statement of institutional mission and goals, student performance goals, program effectiveness goals, and administrative performance goals. The institutional assessment plans were to be completed and approved by institutional governing boards by July 1, 1989. Every year, beginning November 1, 1989, the president of each institution was to submit to its governing board a written report on the attainment of the objectives in the institutional assessment plan. These procedures were adjusted to conform to the accountability language of Senate Bill 459, enacted in 1988 as the "Administration Action Plan for Higher Education." In addition to reorganizing higher education in the state (creating the Maryland Higher Education Commission to replace SBHE, creating a new University of Maryland System), S.B. 459 mandated the above mentioned accountability plans and reports. The new commission, MHEC, charged with establishing the format for these required documents, appointed an Accountability Advisory Committee of segmental and institutional representatives to help in this charge. Draft "Guidelines for Performance Accountability Plans" were tabled by MHEC at its February 9, 1989 meeting, to allow for review by the new Secretary of Higher Education, Dr. Shaila Aery.

Current Student Outcomes Assessment Activities

While the final state guidelines were yet to be adopted, individual institutions in the state began to examine their assessment activities. Most community colleges in Maryland were in a relatively good position to respond to the new accountability requirements. Ongoing assessment activities were well established at most colleges. They included:

State Reporting Systems: All Maryland public community colleges submit enrollment, graduation, and discipline cost data to the state coordinating board on computer tape. These files, part of the Enrollment Information System (EIS), Degree Information System (DIS), and Discipline Cost Analysis (DCA), are analyzed by the state board and displayed in its Program Data Monitoring System (PDMS). The PDMS provides, for each credit program at each college, trends over time and comparisons among colleges in enrollment, awards, unit costs, follow-up survey findings, plus local and state job forecasts. The PDMS program includes quantitative criteria which "flag" college programs deviating substantially from state averages or showing dramatic changes. State board staff identify three or four programs each year for more in-depth, qualitative evaluation. Colleges are asked to respond in writing to a series of questions framed by state staff about the identified programs. The responses are compiled and

published in a program evaluation anthology by the state board each year. In addition, occupational program graduate placement rates, employer ratings of graduates' community college training, pass rates on nursing examinations, and transfer student success indicators for each college are published in the state board's annual Performance Profile.

Surveys Coordinated by the State Board: Surveys designed by the Maryland Community College Research Group (MCCRG) and coordinated by the Maryland State Board for Community Colleges (SBCC) are important sources of assessment data. In addition to routine surveys of graduates and their employers, the MCCRG/SBCC studies include follow-up surveys of entering classes four years after college entry and surveys of noncredit, continuing education students.

Certification/Licensure Examination Performance: The pass rates of the colleges' graduates on national or state licensing or certification exams provide an external measure of program success. While nursing and allied health exams are perhaps the most common, exam results in real estate and other professions are also included in assessment studies.

Transfer Performance Reports from Senior Institutions: Maryland community colleges receive some information on the academic progress of their former students at selected campuses of the University of Maryland. Grade point averages, academic standing, credits attempted and earned, and other data are shared. Efforts are underway to expand both the data set and the number of institutions participating in this activity.

Qualitative Program Evaluations Conducted by Colleges: Many community colleges in Maryland conduct their own in-depth program evaluations, often but not always in conjunction with SBCC requests associated with the Program Data Monitoring System or with accreditation activities.

Institutional Research Studies: Finally, most institutions have an institutional research office involved in studies related to student outcomes assessment. These studies range from the placement and transfer findings from surveys to elaborate, multivariate research designs of student persistence.

A review of existing student outcomes assessment activities among Maryland community colleges suggests the following as major strengths:

1. Existing processes provide a fairly comprehensive review of short-term employment and transfer outcomes.

2. Existing processes have been conducted consistently for nearly a decade, permitting trend analysis.

3. Existing processes include many collaborative statewide data collection efforts, permitting comparative analysis.

The following are major weaknesses, in light of the emphases of initial state guidelines on assessment:

1. Existing processes do not explicitly evaluate general education and higher-level cognitive skills, or the development of critical thinking, clear expression, and responsible citizenship.

2. Existing processes do not incorporate value-added or other comparative measures evaluating student achievement in terms of improvement in the skill and knowledge levels students brought to the college.

One College's Response: A Student Outcomes Accountability Report

Monitoring and assessing student progress and achievement are ongoing activities at Prince George's Community College. At the most fundamental level, faculty evaluate student achievement in the classroom, laboratory, and athletic field. Instructional departments and divisions monitor their courses and programs for effectiveness. The institutional research office conducts numerous studies each year examining student achievement and persistence. The college participates in the many systematic analyses coordinated by the State Board for Community Colleges described earlier.

In response to the SBHE policy directives issued in 1987, the college recognized the need for a comprehensive look at its extensive assessment activity. The president appointed a collegewide Task Force on Institutional Assessment in August 1987, with the charge to make recommendations for the college's response to the SBHE call for an "outcomes-oriented" assessment plan. The task force first explored the merits of using standardized testing. After much deliberation, the task force rejected this approach. Instead, two committees were established: one to investigate enhancements to existing program monitoring efforts, and another to focus on assessment of general education. Preliminary committee reports were made in May 1988. Due to the ongoing legislative activity and uncertainty about what the new commission would require, the task force recessed indefinitely, after recommending that the institutional research office compile a comprehensive report to the Board of Trustees on existing student outcomes information.

In November 1988, the institutional research office presented its Student Outcomes Performance Accountability Report to the Board of Trustees. This 84-page report included data on student course completion rates, term-to-term retention, persistence to degree completion, transfers to senior institutions, graduate employment, employer evaluations of graduate job performance, licensure examination results, general education outcomes, and continuing education outcomes.

Application of Outcomes Data to the Accountability Plan

The state-mandated accountability plans, although their final format has not be dictated by MHEC, will clearly emphasize student outcomes. In informal discussions, colleges have been encouraged to state specific student outcomes objectives in their plans, including the indicators to be used and targets to be attained. The student outcomes report prepared by the institutional research office was invaluable in preparing Prince George's Community College's accountability plan.

In this section, three examples of the application of institutional research findings to the development of accountability objectives will be presented. The examples will demonstrate absolute and comparative standards, time trends and peer institution comparisons. It will be clear how each performance objective in the accountability plan rests upon outcomes data analyzed by the office of institutional research.

Occupational programs at the community college are designed to prepare graduates for immediate entry into a career. One indicator of program success is the percent of graduates finding full-time employment in a job related to their college program within a year of graduation. The research office has obtained this information through annual follow-up surveys since the early 1970s. Findings for the larger occupational programs at Prince George's from the last three surveys were as follows:

Graduate Respondents Employed Full-time
in Jobs Related to PGCC Program

Program	1985	1986	1987
Allied Health	79%	83%	86%
Nursing	82%	75%	76%
Office Technology	75%	71%	75%
Computer Technology	48%	85%	70%
Accounting	70%	69%	67%
Criminal Justice	50%	59%	67%
Business Management	64%	58%	59%
Paralegal/Legal Assistant	55%	50%	54%
Electronics Technology	61%	63%	53%
Marketing Management	60%	35%	36%

The performance objective associated with these data reads as follows: "At least three-fifths of the graduates from each occupational program will be employed full-time in a related field within a year of PGCC graduation." The standard reflects awareness that students may postpone their job search for various reasons; but a program designed primarily to prepare for immediate job entry that fails to regularly achieve a 60 percent placement rate warrants further review. For example, most Marketing Management graduates are opting for further education--an indication that the curriculum objective and standing may need to be changed to reflect a transfer orientation. A similar analysis led to creation of a new Information Systems and Computer Science transfer program, with the result that the placement rate for the Computer Technology occupational program increased to above the 60 percent threshold.

Graduates of health technology programs usually sit for licensure or certification examinations. The college gains valuable feedback from this external evaluation, and content area subtest scores are used by faculty for monitoring program effectiveness. The overall pass rates on these exams are also used by the college as annual evaluation measures:

Pass Rates of PGCC Graduates
on Certification Examinations, 1987

Program	Exam	PGCC Candidates	PGCC Passed	Nationwide Pass Rate
Medical Isotope	ARRT-NMT	8	75%	66%
Medical Records	ART	8	88%	89%
Nursing	NCLEX-RN	110	88%	93%
Radiography	ARRT-Rad.	15	47%	87%
Respiratory Care	CRTT	6	100%	65%

The performance objective associated with these data states that "Completers of PGCC programs who take licensure or certification examinations will pass at a rate equal to or greater than the appropriate state or national average." Substandard pass rates, such as that of radiography in 1987, signal a need for further review. Although graduates have had difficulty with the ARRT-Radiography exams on the first attempt, most have become certified on subsequent attempts. Faculty follow-up found that only 2 of 65 graduates since 1982 have not obtained certification.

Preparation for transfer to senior institutions for completion of the baccalaureate remains a primary community college mission. One measure of college success in this mission is the performance of its transfer students at four-year colleges

and universities. Prince George's receives selected student performance data from the University of Maryland College Park, where about a third of the community college's transfers go. The University provides similar data to the other Maryland community colleges, which permits comparisons such as the following:

Academic Performance of Maryland Community College Transfers at the University of Maryland College Park, Fall 1987

Community College	Number Enrolled	Percent in Good Standing	Mean Cumul. G.P.A.
PGCC	1,181	84%	2.48
Peer A	348	86%	2.55
Peer B	132	83%	2.49
Peer C	102	91%	2.63
Peer D	2,170	87%	2.58
All Maryland CC Transfers	4,584	86%	2.54

The performance objective associated with these data states that "The academic performance of PGCC transfers at senior institutions will equal or exceed that of transfers from comparable Maryland community colleges."

The complete set of short-range institutional objectives in Prince George's' draft accountability plan are appended.

Accountability Issues for Institutional Research

The preceding discussion demonstrates the important role institutional research can play in the accountability planning process. Without a history of sound outcomes research, it would be difficult to set the realistic, specific student performance goals required by the state mandate. Maryland's community colleges are fortunate in having an active professional association, the Maryland Community College Research Group, and a cooperative state coordinating board that together have established statewide reporting systems and conducted joint research studies for nearly two decades. Much of the data needed for accountability purposes are already routinely collected and analyzed. Equally important, many of the political issues--such as releasing institutional comparative data--have been settled. The new accountability initiatives have raised several issues for institutional researchers, however, including the following:

Performance Accountability Plans
Institutional Research Issues

1. Are existing data systems and sources sufficient for the task at hand?

2. How can the diversity of student goals be accounted for in the development of meaningful outcomes measures?

3. In what areas are common definitions and methods needed to permit valid inter-institutional comparisons?

4. How can community colleges obtain transfer student performance data from senior institutions while ensuring student record confidentiality?

5. Can we develop a satisfactory alternative to testing for assessing general education outcomes?

6. Should student performance goals be stated in absolute or comparative terms?

7. Is there a role for national, regional, or state professional associations in this process?

While much has been done, the above questions demonstrate that much remains. It is with good reason that the state accountability initiative has been called "The Institutional Research Full Employment Act."

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